

Appendices



Appendix A

Glossary

Aquatic macrophyte

Vascular plants with special adaptations to aquatic habitats (lakes, streams, springs).

Biological diversity

The spectrum of life forms and the ecological processes that support and sustain them. Biological diversity (or “biodiversity”) is a complex of four interacting levels: genetic, species, community, and ecosystem.

Cover type

Cover typing is a generalized but sometimes useful method of broadly classifying vegetation based on the single species or species group comprising a majority of the living plants (usually commercially important trees when used in a forestry context). Cover types may also reference cultural features such as cornfields or pastures (“grass”). In cases where a clear plurality of a single species is not apparent, terms have been invented to reference groups of commonly co-occurring species, such as “northern hardwoods” and “swamp conifers.”

Driftless Area

The continental glaciers that repeatedly covered parts of the state over the last 2.5 million years left enormous deposits of sand, gravel, boulders, and other material commonly called “glacial drift.” The southwestern quarter of the state shows no evidence of glaciers during the Ice Age, and thus is referred to as the Driftless Area. It is a landscape deeply cut by ancient streams into narrow, dendritic valleys and several hundred million-year-old ridges.

Drumlin

Streamlined, teardrop shaped hills created by glacial action. The long axis parallels the direction of past glacial movement.

Ecological landscape

Geographical units that have been mapped by the WDNR based on similar ecological potential and geography. This classification borrows information both from the watershed based Geographical Management Units, and the ecological classification system known as the National Hierarchical Framework of Ecological Units (NHFEU).

Ericaceous

Pertaining to a family of plants, the Ericaceae, especially characteristic of highly acidic habitats such as bogs and muskeg. Members include well-known plants such as blueberries, cranberries, leatherleaf, Labrador tea, and bog rosemary.

Extirpated

Locally extinct. For example, wolverines have become extirpated in Wisconsin, although they survive in some other states and in Canada.

Invasive species

A non-indigenous species whose introduction does or is likely to cause economic or environmental harm or harm to human health. Many invasive non-indigenous species tend to be superior competitors and form mono-specific stands at the expense of native species.

Macroinvertebrate

Used in the report to refer to aquatic insects and mollusks.

Meromictic

Most lakes experience seasonal turnovers, where the bottom and top waters mix each spring and fall as water temperatures (and thus densities) rise and fall. In very deep and steeply sloped lakes, the water on the top doesn’t sink all the way to the bottom and mix. As a result, permanent thermal and chemical “layers” develop. These lakes are referred to as meromictic.

Mesic

A term used by ecologists to describe site conditions that are well-drained but almost never excessively dry or inundated.

Moraine

Landforms composed of unsorted materials deposited by glaciers. They can cover broad geographic areas of millions of acres. Topography can vary from nearly level “till” plains to rough end moraine landscapes composed of steep dry ridges interspersed with deep kettle holes. These glacial “kettles” are frequent locations for lakes and wetlands.

Natural community

An assemblage of plants and animals, in a particular place at a particular time, interacting with one another, the abiotic environment around them, and subject to primarily natural disturbance regimes. Those assemblages that are repeated across a landscape in an observable pattern constitute a community type. No two assemblages, however, are exactly alike.

Natural Heritage Inventory

A system developed by the Science Division of The Nature Conservancy for collection, management, and use of biological, ecological, and related information. In Wisconsin, the Natural Heritage Inventory was established by an act of the state legislature in 1985, after which the program was installed within the WDNR’s Bureau of Endangered Resources.

Neotropical migratory songbirds

Birds that breed in Canada or the United States during our summer and then travel south and spend the winter in Mexico, Central America, South America or the Caribbean islands. Examples include warblers, thrushes, tanagers, and vireos. Other birds, such as shorebirds (such as sandpipers and plovers), terns, some raptors (such as hawks, kites and vultures), and a few types of waterfowl (such as teal) also annually migrate to the tropics.

Old-growth

Various definitions exist, but among the points they usually share in describing old-growth attributes are large living trees, standing snags, coarse woody debris, pit and mound microtopography, and complex multi-layered canopies. Old-growth stages of many forest types were formerly common and/or widespread in northern Wisconsin but are now very rare.

Outwash

Composed of materials sorted and deposited by glacial meltwaters. The resulting topography can be a level plain (“uncollapsed”) or very hilly (“collapsed” or “pitted”). Pitted outwash may contain numerous lakes, which originated when blocks of ice stranded by a receding glacier were buried within outwash deposits. As the ice melted, depressions were created that filled with water.

Partners in Flight

A collaborative partnership of government agencies (including federal and state agencies as well as agencies in other countries), private conservation organizations, industry, academia, and private individuals with a goal of improving the conservation, management, and scientific understand of birds and their habitats. Launched in 1990, one of its greatest contributions has been framing conservation needs in a hemispheric context.

Rare

Used in this report to refer to native species and natural communities known or suspected to be rare and/or declining in the state (included on NHI’s “Working List”). Included are species legally designated as “Endangered” or “Threatened” by either the State of Wisconsin or the federal government, as well as species in the Department’s advisory “Special Concern” category and on the U.S. Fish & Wildlife Service’s “Candidate” and “Species of Concern” lists.

Restoration

Used in this report to refer to the re-establishment of a natural community, habitat, species population, or other ecological attribute, that has been eliminated or greatly reduced on a given property or landscape. Many factors, sociological as well as ecological, must be weighed when making a decision to engage in a restoration project.

Rosette flora

A collection of plant species with small, stiff leaves in a rosette pattern that hug the bottom of the very soft water lakes. Examples include the rare plantain shoreweed, water lobelia, and quillwort.

Source populations

Self-sustaining populations (of any species) that reproduce at a rate capable of providing individuals (or propagules) that emigrate to other areas. Source populations are the opposite of “sink” populations, which are not self-sustaining and regularly lose significant numbers of individuals, and sometimes become locally extirpated.

State Natural Area

Formally designated sites that contain outstanding examples of native biotic communities, both rare types and those that are common or representative, and are often the last refuges in the state for rare and endangered species of plants and animals. Areas are devoted to scientific research, the teaching of conservation biology, and especially to the preservation of their natural values and genetic diversity for future generations. The Department of Natural Resources currently administers over 400 State Natural Areas encompassing more than 150,000 acres.

Stream order

A classification of streams based on tributary junctions and has proven to be a useful indicator of relative stream size, discharge, and drainage area. Stream sizes in Wisconsin range from unbranched headwater creeks (the smallest stream order and referred to as “1st order”) to the Mississippi River at the Iowa border (at that point, a 9th order stream). Although different variations exist for determining stream order, a common system is as follows: when two first-order streams come together, they become a second-order stream; when two second-order streams come together, they form a third-order stream; and so on.

Tension zone

A narrow region extending from northwest to southeast across Wisconsin, approximating an s-shape and separating the northern hardwood and prairie floristic provinces as described by John Curtis in his 1959 seminal work, *Vegetation of Wisconsin*. This zone contains species associated with both provinces where many occur at the edge of their respective ranges.

Use value taxation

The use-value assessment law, enacted in 1995 Wisconsin Act 27, significantly changed the way agricultural land is valued for property tax purposes. The law provides that farmland be taxed on its ability to produce income from agricultural uses, rather than on its potential market value to developers. The purpose of the law is to slow urban sprawl by allowing farmers to keep their land in agricultural production without burdensome taxation.

Xeric

A term used by ecologists to describe site conditions that are characterized by excessive dryness.